

## Description of the Expedition (Cont.)

SOV/1637

conducted in cooperation with the IGY program. A large part of the observations and preliminary findings cited are in the field of hydrology and hydrochemistry, marine geology, geophysics, hydrography, and hydrobiology. A roster of the members of the expedition together with their specialities is included. There are 72 figures, including maps. Bibliographic references accompany separate chapters.

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5-28-59

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USMANOV, R. F.

PAGE 2 FOR INFORMATION

807/5606

Mezhdunarodnaya konferentsiya po problemam meteorologicheskikh issledovaniy. Moscow, 1959  
 Trudy dokladov (Trudy na Sessiiakh Sistemata. Conference on Meteorological Problems in Antarctica, Moscow, 1959) Moscow, Glazunovskiy  
 (Obzory) 1959, 17 p., 1,000 copies printed.

Ed.: G.O. Kritsak; Tech. Ed.: I.M. Zaitsev.

NOTES: The publication is intended for meteorologists, particularly for those interested in the climatology of Antarctica.

CONTENTS: This book contains summaries of thirty-five reports presented at the Scientific Conference on Meteorological Problems in Antarctica, held in Moscow, October 26 to 28, 1959. The summaries are arranged in four groups: (1) general problems of the geography of Antarctica; (2) atmospheric circulation; (3) radiation balance, climate and special circulation; (4) balance of observation and measurement. The summaries of individual elements: (5) methods of observation and measurement. There are no references.

Part II. RADIATION BALANCE, STATE BALANCE, CLIMATE, AND

THE CONDITION OF INDIVIDUAL ELEMENTS

Batish, N.P. [Candidate of Geographical Sciences, Glazunov Geophysical Observatory in A.I. Voevodova (Main Geophysical Observatory of the USSR in Lazarevskiy, A.Y. Voevodov)] Radiation Balance of the Surface of the Snow in Lazarevskiy [Geophysical Observatory] in A.I. Voevodova (Main Geophysical Observatory of the USSR in A.Y. Voevodov)] Radiation Balance in the Atmosphere

Belov, V.P. [Candidate of Physics and Mathematics, Tsvetkovskiy Geophysical Observatory (Central Astronomical Observatory)] Shortwave Radiation Balance in the Troposphere, and Albedo of the Unstable Surface of the Antarctic Slope and the Arctic Sea According to the Results of Antarctic Observations from Aircraft

Bil, N.P. [Math. Geophys. Observatory in A.I. Voevodov] Turbulent Heat and Humidity Balance in the Air Layer Near the Ground in Antarctica

Bogorod, V.A. [Central Forecasting Institute] Climate Zones of Eastern Antarctica

Bogorod, V.P. [Candidate of Geographical Sciences] and N.I. Strelkovskiy [Central Forecasting Institute] Some Monthly Fields of Air Pressure and Temperature over Antarctica and the Southern Subpolar Zone

Bogorod, V.P. [Candidate of Geophysical Sciences, Tsvetkovskiy Institute of Geography, B.Y. (Candidate of Geophysical Sciences, Tsvetkovskiy Institute of Geography, Central Forecasting Institute)] Geophysical Basis for the Forecasting of the Antarctic Low-Pressure Zone and the Belt of Convection in the Antarctic Low-Pressure Zone and the Belt of Antarctic Subpolar Fronts

Obukhov, A.N. [Institute of Applied Geophysics, Ag. USSR] Forecasting Climate of the Climatic Region in the Interior Regions of Antarctica

Osipov, G.M. [State Geographical Institute] Characteristics of Downwinds (Zakazki: Vzdukh) in Antarctica

Dobrotolom, I.P. [Candidate of Geophysical Sciences, Arctic Academy of Scientific Research and Production] Radiation Balance of the Belcher Islands on Arctic and Antarctic] Special Features of Eastern Antarctica in Relation to Weather Characteristics

Izobkin, T.V. [Glazunov Geophysical Observatory in A.I. Voevodova (Main Geophysical Observatory in A.I. Voevodov)] Investigations of the Electric Field

Esipov, I.D. [Candidate of Geophysical Sciences, Glazunov Geophysical Observatory in A.I. Voevodova (Main Geophysical Observatory in A.I. Voevodov)] Conditions for the Formation of the Snow Cover in Antarctica

Card 67

USMANOV, R.F., kand.teograficheskikh nauk

Coincidence of the Antarctic low pressure zone with sub-Antarctic  
underwater trenches. Inform. biul. Sov. antark. eksp. no.24;5-9  
'60. (MIRA 14;5)

1. TSentral'nyy institut prognozov.  
(Antarctic regions—Ocean bottom) (Atmospheric pressure)

35000

31520  
3/169/61/000/010/022/053  
D228/D304

AUTHOR:

Usmanov, R. F.

TITLE:

Aeroologic maps at standard levels and the prospects of using them in synoptic meteorology and aeroclimatology

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 10, 1961, 2,  
abstract 10B18 (Tr. N.-i. in-ta aeroklimatol., no. 14,  
1961, 153-156)

TEXT: The introduction of aeroologic maps at standard levels into the practice of synoptic meteorology and aeroclimatology is suggested as a more perspective method of analyzing aeroologic observations. When determining the geopotential, the acceleration of the force of gravity is assumed to be constant. Meanwhile, in the case of non-staticary processes, even slight variations of the force of gravity may be of substantial significance. The force of gravity equation for the atmosphere has the form:

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Aerologic maps at...

$$g = \gamma \frac{M}{(R+h)^2} - (\omega \pm \omega')^2 (R+h) \cos^2 \phi$$

where  $\gamma$  is the universal gravity constant,  $M$  is the earth's mass,  $R$  is the earth's radius,  $\omega$  is the angular rate of the earth's rotation,  $h$  is the height above the average level of the spheroid, and  $\omega'$  is the zonal angular rate of air displacement at the given level. The decrease in the force of gravity at the expense of the first member of the equation from sea-level to 20 km reaches  $6 \text{ cm/sec.}^2$ , but by taking the second term into account, this value will increase in a direction towards the equator. The second term's contribution is principally determined by the increment of  $\omega'$ . At the time of westerly flows, the force of gravity will decrease, but it will increase during easterly flows. The greatest changes at the expense of the circulation of zonal flows are observed at the equator and may reach  $4 - 5 \text{ cm/sec.}^2$ , which corresponds to pressure changes of  $4 - 5 \text{ mb}$  at sea-level. Consequently, for calculating

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Aerologic maps at...

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the geopotential it is necessary to take into account changes in the force of gravity, which depends on the direction and speed of the wind. Most errors in the calculation of the geopotential are assumed in non-stationary processes. The advantage of pressure maps at standard levels is that the mass divergence may be calculated from them; they permit examination of the atmosphere within constant volumes and the construction of real particle-trajectories. *[Abstracter's note: Complete translation.]*

X

Card 3/3

USMANOV, R.F.

Aerological maps for standard levels and the outlook for their use  
in synoptic meteorology and aeroclimatology. Trudy NIIAK no.14:  
153-156 '61. (MIRA 15:1)

1. TSentral'nyy institut prognozov.  
(Meteorology--Charts, diagrams, etc.)

S/169/61/000/012/066/039  
D228/D305

AUTHOR:

Usmanov, R. F.

TITLE:

The influence of the earth's rotation on the  
general atmospheric circulation

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 12, 1961,  
51, abstract 12B307 (Tr. Tsentr. in-ta prog-  
nozov, 1961, no. 104, 3-40)

TEXT: As a matter for discussion, the author considers and  
substantiates the following main conclusions derived by him.  
(1) The extremes of the mid-latitudinal distribution of atmos-  
pheric pressure are found on the main critical parallels of the  
rotation ellipsoid that is equidimensional to the earth. (2)  
The intensity of the subtropical high-pressure zones of the no-  
thern and southern hemispheres has a synchronous or unitary  
character which cannot be explained by seasonal changes in the

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The influence of the...

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D228/D305

inclination of solar rays. (3) The deformation forces of the earth's contraction, arising in rotation figures as a result of their tendency to assume a globular shape, is of substantial significance in the formation of fields of atmospheric pressure. (4) The zonal axis of the subtropical high-pressure zone coincides with the critical contraction parallel along which the convergence of the deformation forces of the earth's contraction is observed. (5) The latitudinal shifts of the zonal axes of the subtropical high-pressure belts are related to the changes in the speed of the earth's rotation; in periods of the accelerated rotation of the earth's lithosphere, the subtropical high-pressure zones are displaced to the side of the high latitudes, but in periods of its retarded rotation they shift to the side of the low latitudes. Abstracter's note: Complete translation.

Card 2/2

POGOSYAN, Kh.P., nauchnyy red.; KATS, A.L., nauchnyy red.; KHRABROV, Yu.B., nauchnyy red.; USMANOV, R.E., nauchnyy red.; ELINNIKOV, L.V., red.; ZARKH, I.M., tekhn. red.

[Transactions of the First Conference on General Atmospheric Circulation, March 14-18, 1960] Trudy Nauchnoi konferentsii po voprosam obshchey tsirkulyatsii atmosfery. 1st, Moscow. Moskva, Gidrometeoizdat (otdelenie) 1962. 231 p.

(MIRA 16:4)

1. Nauchnaya konferentsiya po voprosam obshchey tsirkulyatsii atmosfery. 1st, Moscow, 1960. 2. TSentral'nyy institut prognozov, Moskva (for Pogosyan, Kats, Usmanov).  
(Atmosphere)

S/169/62/000/001/056/083  
D228/D302

AUTHOR: Usmanov, R. F.

TITLE: Aerologic maps at standard levels and their prospective use in synoptic meteorology

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 1, 1962, 54, abstract 1B346 (Tr. Tsentr. in-ta prognozov, no. 104, 1961, 123-128)

TEXT: The present universally adopted method of the baric topography possesses a number of deficiencies, of which the main one is the impossibility of duly allowing for the non-stationary nature of atmospheric processes. It is pointed out that apart from the earth's mass, its angular velocity, the distance from the center, and the latitude, the gravity value entering into different formulas also depends on the zonal component of the velocity. The advantage of aerologic maps for standard heights is indicated; these permit the ready calculation of the divergence of mass above the sounding points both for layers of different thickness and for the

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Aerologic maps at ...

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whole atmosphere, the examination of processes within constant volumes, the study of the influence of Archimedean forces on vertical movements in the atmosphere, etc. It is suggested that aerologic maps at standard levels should be introduced into aeroclimatology and synoptic meteorology together with the use of maps of the baric topography. 8 references. ✓ Abstractor's note: Complete translation.

Card 2/2

SKLYAROV, V.M., otv. red.; GRIBANOV, N.N., red.; MULOMTSEV, A.M.,  
red.; POGOSYAN, Kh.P., red.; PROTOPOPOV, V.S., red.; RUDNEV,  
G.V., red.; SOKOLOV, A.A., red.; SOLOV'YEV, V.A., red.;  
USMANOV, R.F., red.; ZHDANOVA, L.P., red.; RUSAKOVA, G.Ya.,  
red.; CHEPELKINA, L.A., red.; KOLESOVA, Z.M., tekhn.red.

[Man and the elements; hydrometeorologic desk calendar for  
1964] Chelovek i stikhiae; nastol'nyi gidrometeorologicheskii  
kalendar' 1964. Leningrad, Gidrometeorologicheskoe izd-vo,  
1963. 154 p. (MIRA 17:2)

USMANOV, R.F.

Use of the technology of mechanized counting for studying  
the general circulation of the atmosphere. Trudy NIIAK  
no.21:79-94 '63. (MIRA 17:3)

SHTERBINOVSKII, N. [Shcherbinovskiy, N.], prof.; USMANOV, R.

In rhythm with the sun. Priroda Bulg 13 no.5:78-79 S-1 '64.

1. Corresponding Member, V.I.Lenin All-Union Academy of Agricultural Sciences (for Shcherbinovskiy). 2. Head, Department of Satellite Meteorology at the Central Institute of Weather Forecasts (for Usmanov).

BACHURINA, A. A.; PAVLOVSKAYA, A. A.; USMANOV, R. F.

Khoren Petrovich Pogosian; 1904- on his 60th Birthday. Meteor.  
(MIRA 17:5)  
i gidrol. no. 4:61-62 Ap '64.

ZAYTSEVA, N.A.; UZENOV, R.F.

Vertical cross section of the atmosphere in the equatorial  
zone of the central part of the Pacific Ocean. Trudy TSIP  
no.137:83-93 '64. (MJRA 17:9)

BURAKOV, I. M., USMANOV, R. K.

Treatment of certain forms of deafness by transplant of preserved tissue of aloe. Vest. otorinol. 12:4, July-Aug. 50. p. 44-6

1. Of the ICR(Otorhinolaryngological) Clinic (Head—Prof. I. M. Burakov), Astrakhan' Medical Institute (Director—Prof. S. S. Serebrenikov).

OLML 19, 5, Nov., 1950

USMANOV, R. R.

"Data on the Problem of Papillomatosis of the Throat in Children." Cand Med Sci, Central Inst for the Advanced Training of Physicians, Min Health, Moscow, 1955. (KL, No 12, Mar 55)

SO: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

RUSTAMOV, Kh.R.; USMANOV, R.U.

Mutarotation of glucose in the presence of anion exchangers.  
Uzb.khim.zhur. 6 no.2:36-38 '62. (MIRA 15:7)

1. Tashkentskiy politekhnicheskiy institut.  
(Glucose—Optical properties)  
(Ion exchange)

USMANOV, R.U.; RUSTAMOV, Kh.R., doktor khim. nauk

Some problems of anion-exchange catalysis. Uzb. khim. zhur.  
(MIRA 18:12)  
9 no. 4:64-68 '65.

1. Tashkentskiy politekhnicheskiy institut. Submitted July 31,  
1964.

USMANOV, R.U.; RUSTAMOV, Kh.R.

Kinetics of the condensation of furfurole with nitromethane in  
the presence of an anion exchanger. Report No.2. Uzb.khim.zhur.  
8 no.1:82-86 '64. (MIRA 17:4)

1. Tashkentskiy politekhnicheskiy institut.

USMANOV, S.M., aspirant

Copper metabolism in the organism of patients with acute  
bacillary dysentery of average severity. Med. zhur. Uzb.  
no.9:42-45 S '62. (MIRA 17:2)

1. Iz kafedry infektsionnykh bolezney (zav. - prof. I.K.  
Musabayev) Tashkentskogo gosudarstvennogo instituta usover-  
shenstvovaniya vrachey.

Сборник № 11

BEZRODNOV, Nikolay Aleksandrovich; USMANOV, Saidmakhmud Nogmanovich;  
SOLYANOVA, N., red.; BAKHTIYAROV, A., tekhn.red.

[Accumulation of general funds on collective farms of Uzbekistan]  
Nakoplenie obshchestvennykh fondov v kolkhozakh Uzbekistana.  
Tashkent, Gos. izd-vo Uzbekskoi SSR, 1958. 55 p. (MIRA 11:5)  
(Uzbekistan--Collective farms)

USMANOV, S.Z.

Converting single-phase voltage into n-phase voltage using RC  
circuits. Izv. AN Uz. SSR. Ser. tekhn. nauk no. 2:35-41 '57.

(Electric current converters)

(MIRA 11:7)

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S/167/59/000/006/002/002  
A110/A029

13.2000

AUTHOR: Usmanov, S. Z.

TITLE: Electronic Devices for Control of the System "Ionic Frequency Converter - Asynchronous Motor"

PERIODICAL: Izvestiya Akademii nauk Uzbekskoy SSR, 1959, No. 6, pp. 20-31.

TEXT: The main problems in modern electrical drives is the development of controllable a-c drives and a wide use of simple asynchronous electric motors. The solution of this problem will aid the complex automation of the industry. A new method of regulating the velocity of asynchronous electric motors consists in the alteration of their frequency. However, the realization needs an efficient frequency converter of which the ionic frequency converter is to be preferred (Refs. 1, 2). In the automated-electronic-drive laboratories of the Institut energetiki i avtomatiki (Institute of Power Engineering and Automation) of the AN Uzbekskoy SSR (AS of the Uzbekskaya SSR) the properties of the ionic system asynchronous motor were examined (Refs. 3-8) and electron-ion elements for control of its operation were developed. - In order to get a voltage with an alternating frequency, *✓*

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A110/A029

Electronic Devices for Control of the System "Tonic Frequency Converter -  
Asynchronous Motor"

the grids of the autonomous inverter are to be supplied with impulses of alternating frequency, following a strict sequence (Fig. 1). For the drive system in question some grid-control devices were already developed (Ref. 9). The grid-control device consists of: a generator of sinusoidal voltage, a limiting-amplifier with a differentiator, a power amplifier and a rectifier. Fig. 2 shows a three-phase grid-control device, Fig. 3 a single-phase generator (a) and a converter with an impulse-generating device for one phase (b). Experiments have shown that devices consisting of a three- or single-phase RC-type electronic generator of sinusoidal voltage show the best results. The three-phase generator is a three-valve amplifier with additional elements, producing 150-200 v and a frequency ranging from 5 cycles per second to some kilocycles. The following tubes can be used: 6П6С (6P6S), 6П3С (6P3S), 6П9 (6P9), 6П14П (6P14P), 6П1П (6P1P), Г-807 (G-807). The output voltage of the single-phase generator is converted into three phases by the author's method (Fig. 3,a,b, Ref. 10). The limiting amplifier with a converter is used to convert the sinusoidal voltage into impulses with a steep frontal section, which are first converted into a rectangular form and then amplified

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A110/A029

Electronic Devices for Control of the System "Ionic Frequency Converter - Asynchronous Motor"

and converted. The power amplifier is needed after the differentiation, yielding 40 watts at 150 volts. A 6H5C (6N5S), 6P9, 6P14P tube is used. The mentioned device is being examined during 3 years at the inverter and rectifier installations of the Power Engineering and Automation Institute of the Uzbekskaya SSR with TPI-40/15, TPI-6/15 thyratrons. A substitution of the electron tubes by flat triodes brought a power increase of the control impulse (more than 100 watts at 150 volts). Semiconductors have shown positive results. Main breakdowns are short-circuits, back-firings and the tilting of the inverter. A circuit diagram of a high-speed grid-protection of an autonomous inverter unit is shown (Fig. 4) and described. The relay operates in 0.1-0.15 seconds. The unit operated for two years in the ionic-frequency-converter installation with high sensitivity and reliability. In Fig. 5 an oscillogram is shown of the switching off of an ionic converter by this protective device. A stabilizing and regulating device for the output voltage of the ionic frequency converter, which carries out automatically the stabilization and regulation of the output voltage by means of influencing the angle of regulation  $\alpha$ , is described. A principal (a) and a detailed

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Electronic Devices for Control of the System "Tonic Frequency Converter - Asynchronous Motor"

(b) circuit diagram of the device is given in Fig. 6. There are 3 different diagrams of phase displacing circuits with an impulse producing device (Figs. 7a, 7b and 8). The device shown in Fig. 6b was tested in an inverter installation (Ref. 6). Figs. 9(a,b,c) and Figs. 10(a,b,c) are reproductions of oscillograms of this testing process. This article was made under the guidance of M. Z. Khamudkhanov. There are 10 figures and 10 Soviet references.

ASSOCIATION: Institut energetiki i avtomatiki AN Uzbekskoy SSR (Institute of Power Engineering and Automation, AS Uzbekskaya SSR) ✓

SUBMITTED: July 12, 1959

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ACCESSION NR: AR3006173

S/0275/63/000/007/V031/V032

SOURCE: RZh. Elektronika i yeye primeneniye, Abs. 7V183

AUTHOR: Usmanov, S. Z.

TITLE: Electronic devices for grid control of ionic converters

CITED SOURCE: Sb. Vopr. energ., avtomatiki, mekhan. i gorn. dela. Tashkent AN UzSSR, 1962, 5-17

TOPIC TAGS: rectifier grid control, electronic circuit, transistorized circuit

TRANSLATION: A description is presented of a recently developed universal, high-speed, electronic, grid control circuit. The block diagram of the grid-pulse generator consists of the following elements: an electronic bridge-type phase-shifting network, amplifier-limiter for sinusoidal voltage, differentiating element and an output power unit. The phase-shifting network is a bridge circuit, the reactive arm of which is a resonant circuit, and the variable active element is a transistor connected through a step-down transformer and a bridge-type rectifier. The amplified and limited alternating sinusoidal voltage is differentiated with a transistor connected as a load for the first amplifier stage. In the same stage,

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ACCESSION NR: AR3006173

the width of the pulse is regulated by shunting the transformer winding. The complete circuit of the vacuum-tube oscillator for the grid pulse, for one phase of the transformer, contains three vacuum tubes. A similar circuit, built with transistors, contains also three amplifier elements. The pulse amplitude at the output of the circuit is 200 volts for a load of 1,000 ohms. The width of the pulse is regulated from 10 to 150 C. Tests of the circuits have shown them to be highly operative and reliable. The ambient temperature fluctuated during operation from 10 to 42 C. Bibliography, 10 titles. L. R.

DATE ACQ: 21Aug63

SUB CODE: EE

ENCL: 00

Card 2/2

KHAMUDKHANOV, M. Z., TROITSKIY, V. A., USMANOV, S. Z.

Transformer regulating output voltage by means of a magnetic  
commutator. Izv. AN Uz.SSR. Ser. tekhn. nauk 6 no.5:38-43  
'62. (MIRA 15\*10)

1. Institut energetiki i avtomatiki AN UzSSR.

(Electric transformers)

KHAMUDKHANOV, M.Z.; USMANOV, S.Z.

Transformer with stepless control of secondary voltage by varying  
the magnetic flux by means of a magnetic shunt. Izv. AN Uz.  
SSR. Ser. tekhn. nauk 7 no.1:9-13 '63. (MIR 17:6)

1. Institut energetiki i avtomatiki AN UzSSR.

KHAMUDKHANOV, M.Z.; USMANOV, S.Z.

Measurement of the angular velocity of a micromotor. Izv. AN  
Uz. SSR. Ser. tekhn. nauk 8 no.1:85-86 '64. (MIRA 17:6)

1. Institut energetiki i avtomatiki Gosudarstvennogo komiteta  
po energetike i elektrifikatsii SSSR.

KHAMUDKHANOV, M.Z.; USMANOV, S.Z.

Setup for transforming monophase voltage into three- and  
six-phase pulse voltage for the control of multiphase  
ionic inverters. Izv. AN Uz. SSR. Ser. tekhn. nauk 8  
no.2:5-13 '64. (MIRA 17:6)

1. Institut energetiki i avtomatiki AN UzSSR.

KHAMUDKHANOV, M.Z.; USMANOV, S.Z.; MUMINOV, K.

Automatic damping of unwanted oscillations in electromechanical systems with a rectifier converter. Dokl. AN Uz. SSR 21 no. 11: 31-35 '64. (MIRA 18:12)

1. Uzbekskiy nauchno-issledovatel'skiy institut energetiki i avtomatiki. 2. Chlen-korrespondent AN UzSSR (for Khamudkhanov). Submitted June 19, 1964.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001858130012-2

USMANOV, U.

Accessory rutile, ilmenite, apatite, magnetite, and monazite  
from microclinite. Zap. khr. odd. Vses. min. soveta no. 6123-63.  
165. (MIRA 2A17)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001858130012-2"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001858130012-2

PIVOVAROV, N.V.; RABINOVICH, S.G.; TAKCHENKO, A.N.; USMANOV, V.B.;  
YATMANOV, B.A.

Photocompensating stabilizers. Izm. tekhn. no. 3:44-46 Mr '65.  
(MIRA 18:5)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001858130012-2"

L 36657-65 EWT(d)/EEC(k)-2/EEC-4 Po-4/Pq-4/Pg-4/Pk-4/Pl. 4

ACCESSION NR: AP5007397

S/0286/65/000/004/0049/0050

AUTHOR: Mints, M. B.; Rabinovich, S. G.; Usmanov, V. B.

35

B

TITLE: Method of determining the time constant of photosensitive cells. Class 21,  
No. 168382

21

SOURCE: Byulleten' izobreteniy i tovarknykh znakov, no. 4, 1965, 49-50

TOPIC TAGS: photosensitive cell, time constant measurement 9M

ABSTRACT: A method of determining the time constant of photosensitive cells by varying their illuminance is proposed. To approximate operating conditions, the cell is inserted in the circuit of a photoelectric compensator operating under self-oscillation conditions. The time constant is either calculated on the basis of the critical conditions of dynamic stability or read from a previously calibrated balancing resistor in the feedback circuit of the compensator. Orig. art. has: 1 figure.

[DW]

ASSOCIATION: none

SUBMITTED: 26Nov62

ENCL: 00

SUB CODE: EC

NO. REF. Sov: 000

OTHER: 000

ATD PRESS: 3221

Card 1/1

USMANOV, Yu.Kh.; ZAVALISHIN, F.S., redaktor

[Highly efficient use of grain combines] Vysokoproizvoditel'noe  
izpol'zovanie zernovykh kombainov. Kazan', Tatkniigoisdat, 1955.  
31 p. (MLRA 10:2)

Ustyanov, Ju. A.

7743 Opredelitel' mineral'nykh udourenij. Issl 2-je, Pererabot.  
GFA, Bashkir. KN. Izd., 1955. 19s. 10 Sm. 5.000 EKZ. 10 K.-  
(50-1950) 631.82:543

SO. Knizhnaya Letopis', Vol. 7, 1955

Ushakov, Yu. A.

GERM

/ The specificity of nitrogen nutrition based on the evolution of nitrogen. Yu. A. Ushakov. *Zemledelie* 3, no. 2, 72-74 (1955).--Plants have hereditary preferences for the source of N. The original nitride forms of N are postulated to give rise to  $\text{NH}_4^+$  forms with the advent of life and later to  $\text{NO}_3^-$  forms. As a result, some plants have developed a preference for  $\text{NH}_4^+$  and are called ammoniphiles. Rice and sugar cane are ammoniphiles. Plants preferring  $\text{NO}_3^-$  are nitrophiles. Spring wheat, barley, lupines, flax, corn, hemp, and sunflower are nitrophiles. The preferential requirements for N have their influence on the proteins produced and their isomers. It would be profitable to establish the plant ecotypes from the point of view of the evolution of N in the specific requirements for N sources by plants. J. S. Joffe

USSR/Soil Science. Soil Biology

J-2

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 43842

Author : Yannov Yu.A.

Inst : Not Given

Title : A Study of the Agronomic Value of Ashinskiy Phosphorite

Orig Pub : V sb.: Vopr. geol. agron. rud. M., AN SSSR, 1956, 41-46

Abstract : Ashinskiy phosphorite which is extracted in the Bashkir ASSR contains  $P_2O_5$  -25.83%,  $R_2O_3$  - 9.30%. In soil cultures the oat grain yield on acid soils was somewhat higher with phosphorite than with superphosphate, although it was lower on leached chernozems. In field tests summer wheat yielded a grain boost, in comparison with the unfertilized control, amounting to 11.1% with superphosphate, and 23.0% with phosphorite; oats yielded respectively 55.3 and 55.0%. The conclusion is drawn that Ashinskiy phosphorite (a fraction < 3 mm. and comprising ~ 30% of the total weight of the sample taken; it is easily sorted with a sieve) may be utilized as fertilizer with good results. -- A.M. Shchepetil'nikova

Card : 1/1

USSR/Soil Science. Mineral Fertilizers.

I-5

Abs Jour: Referat Zh-Biol., No 6, 25 March, 1957, 22478

Author : Usmanov, Yu.

Inst :

Title : Ashin Phosphorites and the Possibility of Their Use as Fertilizers.

Orig Pub: S. kh. bashkirii, 1956, No 4, 14-17

Abstract: Ashin phosphorites (near Vavilovo station on the Ufim railroad) contain from 10 to 36%  $P_2O_5$ , from 45 to 55% CaO. The vegetative and field experiments with Ashin phosphorites, conducted by the Bashkir agricultural institute, and also experiments in collective farms in different sections of Bashkiria proved their high effectiveness. Especially large harvest increases were obtained by the use of phosphorite for winter rye.

Card : 1/1

-5-

USMANOV, Yu A

M.

USSR/Cultivated Plants - Fodder.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15722

Author : Yu. Usmanov, Z. Soshnina

Inst : Bashkir Agricultural Institute.

Title : The Effect of Fertilizer on the Mangel-Wurzel Yield.  
(Vliyaniye udobreniy na urozhay kormovoy svekly).

Orig Pub : S. kh. Bashkirii, 1956, No 9, 20-28.

Abstract : The department of agricultural chemistry of the Bashkir Agricultural Institute conducted tests in 1953 and 1954 to study the effect of mineral fertilizer and manure on the mangel-wurzel yield on the forest steppe of Bashkir. The greatest yield boost at 78.5 centners per hectare was gotten when applying P<sub>2</sub>O<sub>5</sub> 200 and K<sub>2</sub>O 100 kilograms per hectare, and when 30 tons per ha. of manure was added as well there was 51.6 centners per ha.

Card 1/2

USSR/Cultivated Plants - Fodder.

H.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15722

Nitrogenous fertilizers only increased the top mass, hence their application in the first years of cultivated leached out chernozem soils is optional.

Card 2/2

125

COUNTRY : USSR  
CATEGORY : Soil Science. Mineral Fertilizers.  
PUB. NO. : РГАФИК., №. 23 1958, №. 104-74  
AUTHOR : Usmanov, Yu. A.  
INST. : Bashkir Agricultural Institute  
TITLE : Results of Field Experiments with Asha Rock Phosphate  
ORG. PUR. : Tr. Bashkirsk. s.-kh. in-ta, 1957, 8, No. 2, 31-42  
ABSTRACT : In 1953 near the city of Asha, Chelyabinskaya oblast, an occurrence site for rock phosphate containing from 1% to 25%  $P_2O_5$  was discovered. The agrochemistry chair of Bashkir Agricultural Institute tested the effect of meal made of this rock phosphate on the yield of various crops under field and vegetative experimental conditions. They also studied the effect of P on the chemical composition and yield quality and on the agrochemical properties of the soil. Experiments were carried out on various soils (chernozems and grey forest soils) with grains (winter and spring), potatoes, sugar beet, lupine, vetch and other crops. It

1/2

COUNTRY :  
CATEGORY :  
MR. JOUR. : BuhBiol., №. 23 1958, №. 104474  
AUTHOR :  
PAGE :  
FILE :

OPAC. PUB. :

ABSTRACT : Was established that  $P_f$  increases the yield almost to the same extent as does  $P_g$ , of the majority of plants on all experimental soils (except carbonate chernozem). A map-diagram of the regions of rock phosphate formation of the Bashkir ASSR is drawn up. The application of  $P_f$  under winter grains at the rate of 50-60 kg/hectare of  $P_2O_5$  is recommended, as is also its use in the form of composts. -- V. Tsierling

Card: 2/2

14

Yu. A. USMANOV (Bashkir Inst. of Agriculture) V. D. BOBOK AND N. N. DZENS-LITOVSAYA  
(Leningrad Univ.), K. G. RAMAN (Latvian Univ.), V. A. DEMENT'YEV (Byelorussian  
Univ.), A. V. STUPISHIN (Kazan' Univ.), B. A. LUNIN (Kirghiz Univ.)

"The economic division of their respective regions"

report presented at an Inter-University Conference on Dividing the USSR into  
Economic Regions, 1-5 February 1958, Moscow, (Izv. Akad. Nauk SSSR, 4, 146-49;  
1958 author - Gvozdetskiy, N. A.)

USMANOV, Yu.A., zasl. deyatel' nauki Bashkirskoy ASSR, otv. za vypusk;  
KHRIZMAN, I.A., glav. red.; KOBYAKOV, I.A., red.; ABDUL'MENEV,  
M.I., red.; DYMENT, O.N., red.; IMAYEV, M.G., red.; MOSKOVICH,  
S.M., red.; ROZHDESTVENSKIY, V.I., red.; SERGEYEV, L.I., red.;  
SIMONOV, V.D., red.

[Chemicalization of agriculture in Bashkiria] Khimizatsiya sel'-  
skogo khoziaistva Bashkirii; trudy konferentsii. Ufa, Bashkirskoe  
respublikanskoe pravlenie Vses. khim. ob-va im. D.I. Mendeleeva.  
No.1. 1959. 117 p. (MIRA 16:1)

1. Respublikanskaya konferentsiya po voprosam khimizatsii sel'-  
skogo khozyaystva BASSR  
(Bashkiria---Agricultural chemistry)

KHRIZMAN, I.A., prof., glav. red.; USMANOV, Yu.A., prof., zam. glav. red.; SERGEYEV, L.I., doktor biol. nauk, prof., otv. za vypusk; KOBYAKOV, I.A., tekhn. red.

[Chemicalization of agriculture] Khimizatsiia sel'skogo khozaiistva; doklady i tezisy. Ufa, Bashkirskoe respublikanskoe pravlenie Vses. khim. ob-va im. D.I. Mendeleeva. Vol.3. 1961. 86 p. (MIRA 16:4)

1. Nauchno-proizvodstvennaya konferentsiya po mikroelementam i ikh znacheniya v sel'skom khozyaystve Bashkirii.
2. Kafedra agrokhimii Bashkirskogo sel'skokhozyaystvennogo instituta (for Usmanov). 3. Kafedra obshchey khimii Ufimskogo aviationsionnogo instituta (for Khrizman).

(Bashkiria--Agricultural chemistry)

BOYBUTAYEV, K.B., kand. tekhn. nauk; MURADOV, Zh.M.; USMARIOV, Yu.,  
assistant; KOSIMOV, Sh., red.

[Use of solar energy in the national economy] Kuesh  
energiasidan khalk khuzhaligida foidalanish. Toshkent,  
"Kizil Uzbekiston," "Pravda Vostoka" va "Uzbekistoni  
Surkh," 1964. 40 p. (Uzbekiston SSR "Bilim" zhamiati,  
no.2) [In Uzbek] (MIRA 18:6)

L 3683-66 EWT(d)/T IJP(c).

ACCESSION NR: AR5009892

UR/0044/65/000/002/B097/B097

517.948.32:517.544

SOURCE: Ref. zh. Matematika, Abs. 2B400

AUTHOR: Barkhin, G. S.; Usmanov, Z. D.

TITLE: The Hilbert problem for piecewise regular generalized analytic functions

CITED SOURCE: Sb. Issled. po krayevym zadacham teoriy funktsii i differents. uravneniy. Dushanbe, 1964, 113-132

TOPIC TAGS: Hilbert space, mathematical analysis, differential equation, analytic function

TRANSLATION: In the multiply connected region  $D^-$ , bounded by  $m + 1$  simple closed Lyapunov-type curves:  $L = L_0 + L_1 + \dots + L_m$ , of which  $L_0$  contains the rest, and cut along  $n$  simple closed curves:  $\bar{L} = \bar{L}_1 + \dots + \bar{L}_n$ , the following boundary value problem is solved: To find a solution to the differential equation

$$\frac{\partial V}{\partial z} + AW + BW = 0 \quad (1)$$

(a generalized analytic function), satisfying the boundary conditions

$$\operatorname{Re}[G(t)W^-(t)] = g(t), t \in L, \quad (2)$$

$$W^+(t) - a(t)W^-(t) + b\bar{W}^-(t), t \in \bar{L}. \quad (3)$$

Card 1/2

L 3683-66

ACCESSION NR: AR5009892

The following restrictions are imposed: the curves  $l_i$  have curvature satisfying the Hölder condition;  $G$ ,  $g$ , and the derivatives of  $a$  and  $b$  satisfy the Hölder condition;  $a$  and  $G$  do not tend towards zero. It is proven that if, in addition,

$$|a(l)| > |b(l)|$$

then in relation to the number of linearly independent solutions and conditions of solvability, the problem (1) - (3) behaves in the same way as the Hilbert boundary value problem (2) for analytic functions with index

$$x = \text{Ind} G(l) + \text{Ind} a(l).$$

The method of solution consists of introducing a new function which satisfies the Beltrami differential equation in  $D$ , and for which the boundary condition (3) reduces the condition of continuous extension. The results are used to calculate the number of solutions to problems on infinitely small and finite deformation of surfaces. F. Gakhov.

SUB CODE: MA

ENCL: 00

KC  
Card 2/2

L 37660-65 EPA(s)-2/E/T(s)/EPF(s)/EPI/E+P(s) 17 Ps-4/Pt-4/Ps-4/Pt-10

ACCESSION NR: AT4640802 5-2-74

S/3099/32/000/001/0105/0115

AUTHOR: Usmanov, Z. Kamenskiy, I. V. Isayev, I. F. Kavarskaya, R. M.

TITLE: Synthesis and investigation of the properties of furfurylidene methylethylketone

SOURCE: AN UzSSR. Institut khimi polimerov. Fizika i khimiya prirodnih i sinteticheskikh polimerov, no. 1, 1962, 17-21.

TOPIC TAGS: furfural polymer, furfurylidene methylethylketone, methylethylketone

**ABSTRACT:** In a continuation of their previous work with furfural and acetone, the authors prepared furfurylidene methylethylketone by mixing furfural with excess methylethylketone at 10°C and allowing the mixture to react in the presence of Al chloro-Na<sup>+</sup> for 4 hrs., yielding an oily yellow-orange liquid in 57% yield. Thermal resinification took place when this product was heated at 240-245°C for 12 hours. Heating in the presence of an initiator such as benzoyl peroxide and acetone to 180-240°C

Card 1/2

L 37660-65

ACCESSION NR: AT4040802

2

In the presence of alkaline catalysts, furfurylidene methylethylketone forms a fusible, soluble polymer at 130-180C; this polymer can then be hardened in the presence of acidic catalysts. (See synthesis of the ester in the following section. Structure of the ester)

fusible and insoluble. These properties also showed that the hardened resin based on furfurylidene methylethylketone has high heat resistance (up to 300C). The art has a good adhesion to various materials.

ACCESSION NUMBER: 13001858130012-2  
SUBMITTED: 008  
NO REF Sov: 008  
OTHER: 006

Card 2/2 <sup>1/4</sup>

L 37661-65

BPA(s)-2/EMT(s)/EMT(c), BPR/BPR(s)/I

EMT(s)/EMT(c)/I

W/EM

S/3099/62/006/001/0115/0123

ACCESSION NR: AT4049803

AUTHOR: Usmanov, Z.; Kamenskiy, I. V.; Losev, I. P.; Kovarskaya, B. M.

TITLE: Synthesis and investigation of the condensation products of furfural with higher aliphatic aldehydes. Part II. Synthesis and investigation of furfural with methylaldehyde polymers and their properties

SOURCE: AN SSSR. Institut po polimeram i vysokomol. soedinenij. Zhurnal polimerov, cheskikh polimerov, no. 1, 1962, 115-123

TYPE: Part II. The synthesis of furfural with methylaldehyde polymers and their properties. Hardening, alkaline catalyst, methanol, benzene, furfural

ABSTRACT: In a continuation of their earlier work with methylethylketone (see Part I), the authors have now synthesized furfural with methylaldehyde polymers. These polymers are soluble in benzene and methanol, and are hardening with an alkaline catalyst.

L 32661-65

ACCESSION NR: AT4346803

ACCESSION NR: AT4346803  
the rate of polymerization increasing sharply with  
the polymer was polymerized at 100°C.

Cord 2/3

L 37661-65

ACCESSION NR: AT4040803

ASSOCIATION: Institut khimfi polimerov AN UzSSR (Institute of Polymer Chemistry,  
AN UzSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: OC

NO REF SOV: 007

OTHER: 001

Card 3/3

L 37662-65 EPA(s)-2/EWT(m)/EPF(c)/EPR/EWP(j)/T PC-4/Fr-4/Ps-4/It-2  
M/M

ACCESSION NR: A74040304

AUTHOR: Usmanov, Z., Kamenskiy, I.V., Losev, I.P., Kovarskaya, B.M.

aliphatic ketones, and polymers of furfurylidene methylbutylketone

SOURCE: AN UzSSR. Institut khimii polimerov. Fizika i khimiya prirodnykh i sinteticheskikh polimerov, no. 1, 1962, 123-130

TOPIC TAGS: furfural polymer furfurylidene methylbutylketone methylbutylketone polymer, polyketone, ionic catalyst, benzenoquinone acid, resin formation, polymer hardening, alkaline catalyst, thermal resinification

ABSTRACT: In continuation of work on the synthesis of furfurylidene and methylbutyl ketone (see Parts 1 and 2), the authors prepared furfurylidene methylbutylketone, a pale-green oil which was freshly distilled furfural and methylbutylketone, yielding a pale-green oil which was readily soluble in organic solvents. Thermal resinification of this oil was accompanied by polymerization. Resinification took place at

readily soluble in organic solvents.  
Card 1/2

I 37662-65

ACCESSION NR: AT4040804

catalysts. In view of the long periods of heating required for resinification in the presence of NaOH, however, alkaline catalysts are not considered within the framework of this

synthesis in the presence of ionic catalysts such as benzenesulfonic acid or  $H_2SO_4$  (less rapidly with  $AlCl_3$ ,  $ZnCl_2$ ,  $SnCl_4$ ), although the rate is slower than that with

4 figures, 5 tables and 2 formulas.

ASSOCIATION: Institut khimii polimerov AN UzSSR (Institute of Polymer Chemistry, AN UzSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: OC

NO REF SOLV: 0002

0000000000

347

2/2

Card

ACCESSION NR: AR4015668

S/0081/63/000/021/0490/0490

SOURCE: RZh. Khimiya, Abs. 21S116

AUTHOR: Usmanov, Z.; Kamenskiy, I. V.; Losev, I. P.; Kovarskaya, B. M.

TITLE: Synthesis and study of the condensation products of furfural with higher aliphatic ketones and the polymers based on them. Parts 1-3.

CITED SOURCE: Sb. Fizika i khimiya prirodn. i sintetich. polimerov. Tashkent, AN UzSSR, vyp. 1, 1962, 105-130

TOPIC TAGS: furfural, furfural condensation, aliphatic ketone, higher aliphatic ketone, ketone polycondensation, ketone based polymer crystallization

ABSTRACT: The authors studied the polycondensation of furfurylidene methylethyl- (I), furfurylidene methylpropyl- (II) and furfurylidene methylbutyl- (III) ketones. When heated to 240°C in the presence of alkaline reagents, I forms a soluble and fusible polymer, which can be hardened under the influence of ionic catalysts ( $H_2SO_4$ , benzenesulfonic acids (IV), Lewis acids). According to data from thermo-mechanical studies, hardening in the presence of IV proceeds in 3 stages: 1) a fusible, low-molecular, soluble tar; 2) a high-molecular tar, swelling in solvents; 3) an infusible and insoluble stereospecific polymer. Hardened tar prepared from

Card 172

ACCESSION NR: AR4015668

I shows increased thermal stability (up to 300C). Tars can be prepared from II and III in the presence of ionic catalysts and require longer heating periods due to the spatial effect of the alkyl radicals. V. Nemirovskiy

DATE ACQ: 09Dec63

SUB CODE: CH

ENCL: 00

Card 2/2

ACCESSION NR: AP4010564

S/0291/63/000/006/v076/0079

AUTHOR: Usmanov, Z.; Kamenskiy, I. V.; Tadzhiev, M.

TITLE: Investigation of the process of forming polymers based on polyene furan aldehydes and some of their analogs. I. Investigation of the process of hardening polymers based on: 2-methyl-3-(alpha-furyl)propene-2-ol, 2-ethyl-3-(alpha-furyl) propene-2-ol, and 5-(alpha-furyl)pentadiene-2,4-ol.

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 6, 1963, 76-79

TOPIC TAGS: polyene furan aldehyde resin, polymer formation, furfurylidene-aldehyde resin, furfurylidenealdehyde condensation

ABSTRACT: The furfurylidenealdehydes form infusible and insoluble resins in the presence of ionic catalysts or on heating. In a reaction with benzenesulfonic acid (less exothermic than with  $H_2SO_4$ ), the solidification is faster with higher temperature and larger amount of catalyst. The strength and thermal stability

Card: 1/2

**ACCESSION NR: AP4010564**

of the polymers obtained are lowered with increasing alkyl chain length, and increased with a greater number of ethylene groups in the side chain. Resinification and hardening of furfurylidenealdehydes are apparently realized by the condensation of the carbonyl groups with active hydrogen atoms of the furan ring, and also by partial exposure of the side ethylene group. Orig. art. has: 3 equations, 3 tables and 1 figure.

**ASSOCIATION:** Moskovskiy khimiko-tehnologicheskiy institut im. Mendeleyeva  
Institut khimii polimerov AN UzSSR (Moscow Chemical Engineering Institute,  
Institute of Polymer Chemistry, AN UzSSR)

**SUBMITTED:** 17May63

**DATE ACQ:** 11Feb64

**ENCL:** 00

**SUB CODE:** CH

**NO REF SOV:** 001

**OTHER:** 003

Card 2/2

L 33225-65 EWT(m)/EFF(c)/EMP(1)/P Pg-4/Tr-4 RM

ACCESSION NR: AP4028152

SI/0291/64/000/001/0060/0066

23

AUTHOR: Usmanov, Z.; Kamenskiy, I.V.; Losev, I.P. (Deceased)

2d

B

TITLE: Synthesis and investigation of condensation products of furfural with high-

polymerizable monomers. I. Synthesis and properties of furylhexadienone and furylheptadienone

SOURCE: Uzbeckiy khimicheskiy zhurnal, no. 1, 1962, 77-87

TOPIC TAGS: furfural condensation product, furylhexadienone, furylheptadienone, furylhexadienone polymer, furylheptadienone polymer

ABSTRACT: Polymers based on furylhexadienone (I) and furylheptadienone (II) have not been previously reported. I was synthesized from furylacrolein and acetone and II from furfural and 7-oxo-1,3,5-heptatriene. The polymers are soluble in organic solvents and have high molecular weights.

Card 1/2

7-33225-65

ACCESSION NO. 7-33225-65

of a fusible organic solvent-soluble polymer, an infusible poorly soluble polymer and finally, an infusible insoluble polymer. With increasing alky chain length, cross-formation and curing, etc., are increased.

Card 2/2

USMANOV, Z.

Fungous diseases of grapes in the Fergana Valley. Uzb. biol.  
zhur. 8 no.2:18-21 '64. (MIRA 17:9)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut zashchity  
rasteniy.

ACCESSION NR: AP4035112

S/0291/64/000/002/0058/0061

AUTHOR: Tadzhiyeva, M.; Usmanov, Z. U.; Kamenskiy, I. V.

TITLE: Investigation of the process of forming polymers based on polyene furan aldehydes and some of their analogs. Communication II: Investigation of the process of forming polymers based on furfural and butyraldehyde

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 2, 1964, 58-61

TOPIC TAGS: furfural butyraldehyde condensation product, polymerization, furylpropenal, preparation, curing, heat polymerization, radical initiator, ionic catalyst, alkali catalyst

ABSTRACT: The preparation and curing of polymers based on the condensation product of furfural with butyraldehyde was investigated. It was established that the 2-ethyl-3-(alpha-furyl)-propen-2-al can form polymers under suitable conditions. The temperature required for heat polymerization was above 250C. Radical initiators, specifically benzoyl peroxide, were found to have no effect on

Card 1/2

ACCESSION NR: AP4035112

the polymerization of this compound. With 5% alkali as catalyst, at high temperatures, a fusible polymer was formed (no polymerization occurred with 1% alkali at 180 and 250C). In the presence of ionic catalysts, thermo setting polymers which will form three-dimensional structures were readily formed. Controllable curing was effected in the presence of benzenesulfonic acid or very small amounts of sulfuric acid. Orig. art. has: 4 formulas and 1 table.

ASSOCIATION: NIITSF Goskhimneftekomiteta pri Gosplane SSSR (NIITSF State Petrochemical Committee of the State Planning Commission SSSR)

SUBMITTED: 07Jul63      ATD PRESS: 3078      ENCL: 00  
SUB CODE: OC, GC      NO REF SOV: 007      OTHER: 003

Card 2/2

152013-03 EW1(m)/EFF(s)/ENP(j)/I FO-1/PR-1 BM  
ACCESSION NR: AP5010258

UR/0291/65/000/001/0047/0051

AUTHORS: Usmanov, Z.; Kamenskiy, I. V.; [Losev, I. P.] (deceased)

TITLE: Synthesis and investigation of condensation products of furfural with higher aliphatic ketones and their polymers. Communication 5. Investigation of the congealing process for condensation products of furfural with methylamyl ketone and methylhexyl ketone

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 1, 1965, 47-51

TOPIC TAGS: furfural, polymer, condensation

ABSTRACT: The investigation is an extension of previous work by Z. Usmanov, I. V. Kamenskiy, I. P. Losev, and B. M. Kovarskaya (Soobshcheniya I, II, III, Izd-vo AN. UzSSR, vyp. 1, 1962). Furfurylidene-methylamylketone was synthesized after the method of A. A. Ponomarev (Issledovaniye v oblasti furanovykh al'degidov i ketonov i ikh proizvodnykh. Doktorskaya dissertatsiya, MGU, 1954). Furfurylidene-methyliisoheptylketone was prepared after the method of A. A. Ponomarev (above) and of A. A. Ponomarev, Z. V. Til', I. Ma-kushina, and K. Sapunar (DAN SSSR, 93, No. 2, 297, 1953). The polymerization goes through three stages, 1) products are fusible and soluble in organic solvents; 2) products are nonfusible and only partially

Card 1/2

L 55013-45

ACCESSION NR: AP5010258

soluble in organic solvents; 3) products are non fusible and are insoluble in organic solvents. The time required to harden the furfurylidene ketones depends on the temperature and the amount of catalyst. The effect of temperature on catalyst is less pronounced for furfurylidene methylhexylketone. The IR spectrum of the polymeric form of furfurylidene methylamylketone showed the absence of the ethylene (1650-1600  $\text{cm}^{-1}$ ), carbonyl (1700-1650  $\text{cm}^{-1}$ ), methylene (1100-1060  $\text{cm}^{-1}$ ) and the  $\alpha$ -hydrogen furane ring (1070-1000  $\text{cm}^{-1}$ ) absorption bands. To obtain the third hardening stage, the polymers were heated for 1.6 hours at 115°C, 1 hour at 140°C, 1 hour at 180°C, and 0.5 hour at 220°C in the presence of 5% sulfuric acid in the case of furfurylidene methylamylketone and 5% benzenesulfonic acid in the case of furfurylidene methylhexylketone. Water is liberated during hardening at elevated temperatures. Samples of furfurylidene methylamylketone and furfurylidene-methylhexylketone deform when heated to 120-125°C and 100-105°C respectively. Orig. art. has: 3 tables and 2 graphs.

ASSOCIATION: Moskovskiy khimiko-tehnologicheskiy institut im. Mendeleyeva  
(Moscow Chemical Technological Institute)

SUBMITTED: 24Jul63

ENCL: 00

SUB CODE: 00, GC

NO REP Sov: 007

OTHER: 006

Card 2/2

L 16170-66 EWT(m)/EWP(j)/T RM

ACC NR: AP5025430

SOURCE CODE: UN/0291/65/000/004/0035/0039

31  
B.AUTHOR: Usmanov, Z.; Kamenskiy, I. V.; Losev, I. P. (deceased)

ORG: NIIKHTTs

TITLE: Synthesis and investigation of condensation products of furfural and higher aliphatic ketones and of the corresponding polymers. 6. Investigation on the curing process of furfural-methyl isopropyl ketone and furfural-methyl isobutyl ketone condensation products

SOURCE: Uzabekskiy khimicheskiy zhurnal, no. 4, 1965, 35-39

TOPIC TAGS: aliphatic ketone, chlorinated aliphatic compound, ketone, polymer, condensation reaction, catalytic polymerization

44/55

ABSTRACT: The title condensation products (I and II, respectively) were synthesized by the methods applied by Kasiwagi (J. Bull. chem. Soc. Japan, 1, No 5, 90(1926) and by Wienhaus and Leonhardi (C. N 1, 224, 1930). The polymerization was carried out at 80-85 and at 115-120C, in the presence of 5-15% of benzenesulfonic acid as catalyst. The latter was added to the monomer at room

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L 16170-66

ACC NR: AP5025430

temperature, without a solvent. The duration of the process depended on the amount of the catalyst and on the temperature. I was an orange oil which contained C 73, H 7, and had  $d_4^{20}$  1.02,  $n_D^{20}$  1.558, b.p. 118-121C/8-9 mm; II was a yellow liquid, C 74.1, H 7.8,  $d_4^{20}$  1.01,  $n_D^{20}$  1.5518, b.p. 119-122/7. The polymerization of I and II occurs in 3 stages. In the 1st and in the 2nd stages solidification is accompanied by saturation of the ethylene group. In the case of II this is accompanied by a partial condensation of the CO with H atoms of the  $\text{CH}_2$  group and separation of 0.09 mole  $\text{H}_2\text{O}$ . The 3rd stage occurs owing to further condensation of the CO with the  $\alpha$ -H of the furan ring and the  $\text{CH}_2$  group. The formation of a dense space structure results in a good thermal stability (up to 250C for I and up to 200C for II). It is shown that formation of polymers from iso alkyl ketones requires more severe conditions than those needed when normal ketones are used. Orig. art. has: 3 figures and 3 tables.

SUB CODE: 07/ SUBM DATE: 24Jul63/- ORIG REF: 005/000TH'REF: 007

Card 2/2

USSR / Human and Animal Physiology. Growth Physiology. T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40897.

Author : Usmanova, A. F.

Inst : Blagoveshchensk Medical Institute.

Title : The Reaction of Balance in the Ontogenesis of Man.

Orig Pub: Tr. Blagoveshchensk. med. In-ta, 1956, 2, 130-133.

Abstract: No Abstract.

Card 1/1

6

MUTRISKOV, A.Ya.; MAMINOV, O.V.; ISHAGILOV, K.G.; USMANOV, R.G.

Entropy method of analysis of chemisorption processes. Izv. vys. ucheb. zav.; khim. i khim. tekhn. i no.3:486-491 '64. (MITA 17:10)

1. Kazanskiy khimiko-tehnologicheskiy institut imeni K.ova, kafedra protsessov i apparatov khimicheskoy tekhnologii i tehnologiki.

2-122-11-45 FORT MONMOUTH (m) (PGS 1-2) FORT  
MONMOUTH, NJ. 07740-4456

3114/65/000/003/B113/B114

SOURCE: Ref. zh. Mekhanika, Aja. 3B697

AUTHOR: D'yakonov, S.G.; Usmanov, A.G.

AUTHOR: S. S. Kline  
TITLE: Some statistical principles of turbulence in the presence of shear  
DATE: 22-1964-36

CITED SOURCE: Tr. Kazansk. khim.-tekhnol. in-ta, vyp. 32, 1964, 36-43

TOPIC TAGS: turbulence theory, pulsation entropy, turbulence temperature, turbulence heat capacity, transverse shear, aerodynamics /

**TRANSLATION:** The authors propose the use of the following concepts within the framework of the theory of the "two-phase" flow:  $S_{\text{fr}}$ , defined by the equation

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CIA-RDP86-00513R001858130012-2

L 43733-65  
ACCESSED BY TIP: AR 5009485

of magnitudes T, C and  $\delta'$  along the crosssection of a channel after preselecting values of  
two constants. A.M. Yaglom

SUB CODE: ME, TD ENCL: 00

*llc*  
Card 2/2

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001858130012-2"

BEREZHKOVA, L.F.; GAROVA, I.I.; YELIZAROVA, Z.I.; USHANOWA, A.V.; GORBUNOVA,  
N.G.; NIKOLAYLOVA, N.M.

Characteristics of the course of toxic forms of diphtheria of the  
pharynx in children during 1954-1955. Nauch. rab. asp. i klin. ord.  
(MIA 14:12)  
no. 6:61-67 '66.

1. Kafedra pediatrii (zav. deystvitel'nyy chlen AMN SSSR prof. G.N.  
Speranskiy) Tsentral'nogo instituta usovershenstvovaniya vrachey.  
(DIPHTHERIA) (PHARYNX--DISEASES)

USMANOV, A.V.

Problems in the diagnosis and treatment of typho-paratyphoid diseases. Sov. med. 25 no.11:123-128 N '61. (MIRA 15:5)

1. Iz kafedry infektsionnykh bolezney (zav. - deystvitel'nyy chlen AMN SSSR prof. G.P.Rudnev) TSentral'nogo instituta usovershenstvovaniya vrachey.

(TYPHOID FEVER)

(PARATYPHOID FEVER)

USMANOVA, A.V.; KURDOVA, N.S.; BOGOMOLOV, B.P.

Clinical and microbiological characteristics of Salmonellosis  
produced by S. Breslau. Zhur.mikrobiol.epid.i immun. 33 no.5:122-  
123 My '62. (MIRA 15:8)

1. Iz Astrakhanskogo meditsinskogo instituta i infektsionnoy  
bol'nitsy imeni V.M.Bekhtereva.  
(SALMONELLA)

VETLUGINA, K.F.; USMANOVA, A.V.; KOL'YAKOVA, T.A.

Liver abscesses of amebic etiology. Kaz.med. zhur. no.5:68-70  
S-0'63  
(MIRA 16:12)

1. Kafedra infektsionnykh bolezney (zav. - dotsent A.P. Vozzhayeva) Astrakhanskogo meditsinskogo instituta i Infektsionnaya bol'ница imeni prof. Bekhtereva (glavnnyy vrach V.I.Gembitskiy) Astrakhan'.

USMANOVA, D.A.

2

S/081/62/000/001/046/067  
B158/3101

AUTHORS: Khodzhayev, G., Zemlinskiy, E. Ye., Chernov, M. F.,  
Kvasnikova, K. A., Kul'metov, A., Tsapenko, M. N., Usmanova,  
D. A.

TITLE: Petroleums from fields in Southern Alamyshik

PERIODICAL: Referativnyy zhurnal. Khimiya, No. 1, 1962, 439-440,  
abstract 1M79 (Uzb. khim. zh., no. 1, 1961, 55-64)

TEXT: Uzbekian petroleums from the field mentioned have low sulfur content, are resinous, have a paraffin base and have a composition approaching that of petroleums from paleogenic and neogenic beds in the same field. The average clear fraction content is 35%, this boils at up to 300°C; the gas oil fraction (300-400°C) is 11-12%, light oils (400-460°C) 13% and asphalt (>460°C) 33.5%. The oils obtained are of low viscosity and require deparaffination. The solid paraffin yield (on petroleum) from fractions up to 460°C is < 5.1%, and in the individual narrow fractions

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Petroleums from fields in...

S/081/62/000/001/046/067  
B158/B101

up to 20-21%. The paraffin is medium fusible. The total solid paraffin content is 10%. [Abstracter's note: Complete translation.]

Card 2/2

3/081/62/000/024/010/052  
B117/B186

AUTHORS: Adylova, T. T., Usmanova, D. A., Ryabova, N. D.

TITLE: Cryoscopic determination of aromatics in the hydrocarbon part  
of petroleum

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24 (II), 1962, 733,  
abstract 24M258 (Uzb. khim. zh., no. 2, 1962, 77 - 79)

TEXT: An adsorption variant of the quantitative cryoscopic determination  
of aromatic hydrocarbons is described, based on measuring temperature de-  
pression in the crystallization of cyclohexane solutions before and after  
these are chromatographed on coarse-pored silica gel. 0.5 g hydrocarbons  
are dissolved in 20 ml cyclohexane and the crystallization temperature of  
the solution is determined. The solution is then passed through a glass  
tube of 1 cm diameter and 40 cm high, filled with 40 g KCK (KSK) silica  
gel of the fraction 0.25 - 0.5 mm and dried preliminarily at 170°C. The  
amount of aromatic hydrocarbons, given in mole%, is then determined from  
the crystallization temperatures of the initial cyclohexane, the hydro-  
carbon solution in cyclohexane, and the filtrate. The error in determining  
the total content of aromatic hydrocarbons was < 2 %. The method can be  
Card 1/2

Cryoscopic determination of ...

S/081/62/000/024/010/052  
B117/B186

applied to determining the content of aromatic hydrocarbons in the total hydrocarbon part of petroleum as well as in gasoline, kerosene, and oils.  
[Abstracter's note: Complete translation.]

Card 2/2

1. KARTYAN, D., UMAKHVA, Y.
2. USSR (CIA)
4. Comets - 1952
7. Observations of the comet Harrington 1952a at the Engelhardt Astronomical Observatory, Astron. tsir., no. 130, 1952.
9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

U.S.D.A.R., P. I.

"Yankee of inviolable neutrality and friend of Uncle Sam and the U.S. for  
anti-Is and their anti-Turkish actions." (Anti-Is. 1st. Al-Az-Zarqani, Inst.,  
15 Dec 34. Dissertation (Kanada-Urusya Pravia Al-Az-Zarqani, 1 Dec 34)

SC: 364106, 9 Aug 1934

STUDENTSOV, K.P.; USMANOVA, F.I.

Dynamics of serological reactions in cattle in brucellosis. Trudy  
Inst.kraev.pat. AN Kazakh.SSR 3:174-184 '56. (MLRA 10:2)

1. Kazakhskiy nauchno-issledovatel'skiy veterinarnyy institut.  
(BRUCELLOSIS IN CATTLE) (COMPLEMENT FIXATION)

USMANOVA, F.I.; STUDENTSOV, K.P.

Morphological composition of the blood in healthy Ala-Tan cattle  
and in those affected by brucellosis. Trudy Inst.kraev.pat. AN  
Kazakh.SSR 3:185-195 '56.  
(MLRA 10:2)

1. Kazakhskiy nauchno-issledovatel'skiy veterinarnyy institut.  
(BRUCELLOSIS IN CATTLE) (BLOOD)

USSR / Microbiology. Microbes Pathogenic for Man and Animals. Bacteria. Brucell. F-4

Abs Jour: Ref Zhur-Biol., 1958, No 17, 76766.

Author : Usmanova, F. I.; Studentsov, K. P.  
Inst : Veterinary Institute, Kazakh Affiliate, All-Union  
Academy of Agricultural Sciences imeni I. V. Lenin.  
Title : Determination of the Length of Preservation of  
Active Properties of Anti-Brucellosis Serum.

Orig Pub: Tr. In-ta vet. Kazakhsk. fil. VASKHNIL, 1957, 8,  
34-39.

Abstract: No abstract.

Card 1/1

USSR/Diseases of Farm Animals. Diseases Caused by  
Bacteria and Fungi.

R-1

Abs Jour : Ref Zhur-Biol., No 18, 1958, 83514

Author : Studentsov, K. P.; Usmanova, F. F.  
Inst : Institute of Veterinary Medicine, Kazakh  
Section of the All-Union ordena Lenin Aca-  
demy of Agricultural Sciences imeni V. I.  
Lenin.

Title : Treating Bovine Brucellosis by Employing Serum  
Prepared According to the Method of Professor  
Uvarov.

Orig Pub : Tr. In-ta vet. Kazakh. fil. VASKhNIL, 1957,  
8, 40-53

Abstract : Antibrucella B serum (obtained from hyper-  
immunized bulls) and S serum (obtained from hyper-  
immunized sheep) prepared according to the method  
of V. G. Uvarov, were used for the treatment of  
cattle. As a result, a gradual decline of agglu-

Card 1/3

USSR/Diseases of Farm Animals. Diseases Caused by  
Bacteria and Fungi.

R-1

Abs Jour : Ref Zhur-Biol., No 18, 1958 83514

Abstract : Agglutination titers with a transition to negative titers was detected in 31.8 percent of the animals. The transition from positive to negative indices in cows subjected to treatment, occurred basically at the expense of positive titers (1:00 - 1:200) and not at the expense of doubtful titers, which was the case in control cows. Effects of serum therapy upon the blood picture in cattle is evidenced by the fact that erythrocytes, leukocytes, eosinophils, and neutrophils were restored to normal counts. As results of hematological and serological investigations for treated animals were compared, it was established that blood picture changes tending towards normalization may be observed in those animals which display decreased agglutination titers. Changes which take place in indicators of agglutination reactions, and changes of the blood picture

Card 2/2

USSR/Diseases of Farm Animals. Diseases Caused by  
Bacteria and Fungi.

R-1

Abs Jour : Ref Zhur-Biol., No 18, 1958, 83514

Abstract : re which were observed in test animals, are results of the body's response to the administration of serum. This phenomenon is apparent as the body activates its defensive functions, which reflects favorably upon the course of infectious processes and brings about complete recovery in some of the animals.--From the author's summary.

Card 3/3

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